Proposed ICN
IP and Routing Networks

Why Ethernet?

- Ethernet has the flexibility to meet agency requests
- Direction of the industry
- Standards have been adopted
- Cost effective to upgrade bandwidth
- Effectively increases available bandwidth by reducing overhead
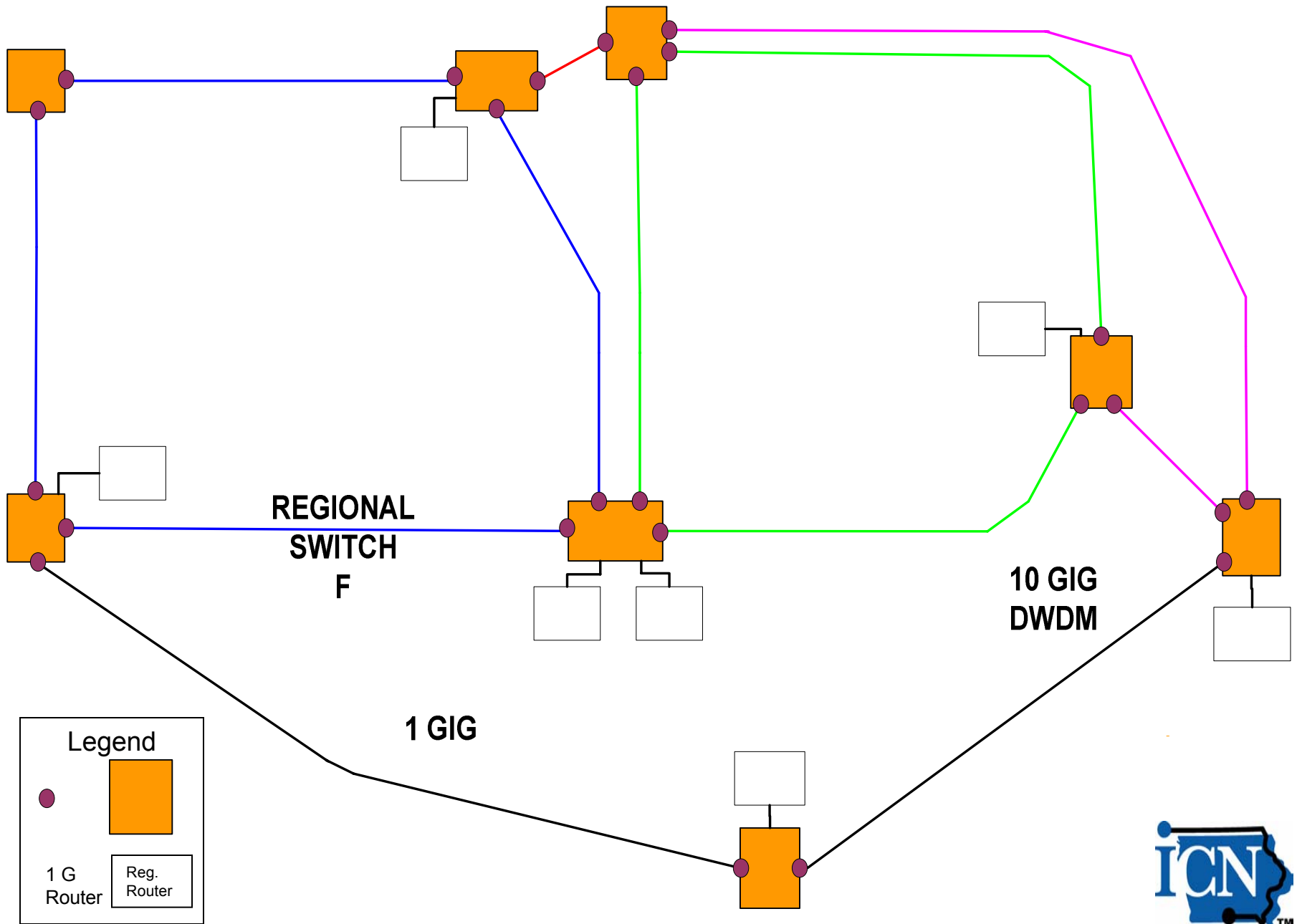
Why regional IP routers?

- Allows more functionality (ie. QoS)

- Provides for redundancy

- Easier access to locations to do repairs and maintenance

- Additional router sites can be added as necessary

Architecture Drivers

- Utilize existing DWDM and fiber assets.

- Requirements exceed 1 Gbps.

- Desire cost effective scalability.

- Research provided 10 G switches is most cost effective.

REGIONAL
SWITCH
F

10 GIG
DWDM

1 GIG

Legend

1 G
Router

Reg.
Router

Location Selection

- Existing ATM switch sites
  - Most efficient migration
  - Availability of required space and power
- Initial deployment locations
  - NE is the highest growth area
  - NW is next in growth as well as number of locations
  - Allows coverage of the entire state with a redundant design

What's next?

- Ethernet switch RFP is being finalized, anticipate release before 6/1/06.
  - Time allowed for demonstrations, contracting, etc.
  - Included in FY 07 appropriation, anticipated purchase orders will be submitted before 2/1/07.
- Routers – five Junipers on order, to be deployed in the areas of highest concentration.

This allows the ICN to:

- Utilize ATM network most efficiently as Ethernet and IP traffic are moved to the IP backbone.
- Add additional Ethernet switch locations as necessary for customer demand.